



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,757	03/30/2001	Satoshi Hanada	P 279433 559121	3864

909 7590 08/01/2002

PILLSBURY WINTHROP, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 08/01/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/820,757

Applicant(s)

HANADA ET AL.

Examiner

Catherine Simone

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 6. 6) ☐ Other: .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-5 and 7 recite the limitation "the range" in lines 2, 3, 5, 6, 8, 10, 12, 16 and 22.

There is insufficient antecedent basis for this limitation in the claims.

Claims 3 and 4 recite the limitation "the direction of thickness" in lines 9 and 13. There is insufficient antecedent basis for this limitation in the claim.

The recitation "a polyolefin-based resin unexpanded layer which is laminated on said expanded layer and has an expansion ratio in the range of 1.0 to 1.5 times" in claim 7 is deemed vague and indefinite. How can an unexpanded layer have an expansion ratio? Or is the expansion ratio referring to the expanded layer? Clarification is requested.

The recitation "having long chain branch" in claim 8 is deemed vague and indefinite. Clarification is requested.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have

Art Unit: 1772

been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubone (5,882,782).

Tsubone discloses a thermoplastic resin sheet having a thermoplastic resin expanded layer of which an expansion ratio is in the range of 3 to 40 times (see col. 3, lines 28-30) except for the specific ranges of the cell wall density ratio as set forth in claims 1, 2, 3 and 4. However, Tsubone teaches a cell size and a number of cells in a 10 mm long straight line in the shorter diameter direction on the surface of the foamed resin sheet (see col. 3, lines 55-63; see col. 6, lines 30-33). Therefore, one of ordinary skill in the art would have determined the cell wall density ratio through routine experimentation depending on the desired end results as shown by Tsubone. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have calculated the optimum or workable ranges depending on the desired end results as shown by Tsubone. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in the absence of showing unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Regarding **claim 5**, note the average cell diameter of the expanded layer is in the range of 1 $\mu$ m to 100 $\mu$ m (see col. 4, lines 24-26). Regarding **claim 6**, note the expanded layer is formed of polypropylene-based resins (see col. 4, lines 61-67). Regarding **claim 7**, note polyolefin-based resin unexpanded layer which is laminated on the expanded layer (see col. 17, lines 1-7) and an expansion ratio in the range of 1.0 to 1.5 times (see col. 3, lines 28-30). Regarding **claim 8**, the unexpanded layer is formed of polyolefin-based resins having long chain branch (see col. 2, lines 61-67).

Art Unit: 1772

Regarding **claim 9**, note a container formed from the thermoplastic resin sheet (see col. 1, lines 15-20).

*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents are cited for further teachings of thermoplastic resin sheets similar to that instantly disclosed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703) 605-4297. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

CAS

Catherine Simone  
Examiner  
Art Unit 1772

July 24, 2002

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

7/29/02